

“assigning sample patterns to each pixel” (**Baker et al.**, fig. 27);
“determining if the first image intersects any of the sample location” (**Baker et al.**, fig. 27, “position fragment”); and
“illuminating pixels” (**Baker et al.**, fig. 33).

The Office Action further stated that “sample pattern having at least one sample location” is well known in the art according to **COOK et al.**, Fig. 4. However, under MPEP §706.02(j), in order to establish a prima facie case of obviousness, the prior art references when combined “much teach or suggest all the claim limitations.” Upon review of the cited references, Applicant does not discern where in Fig. 4, or the references as a whole, each of the elements of Claim 1 can be found. Accordingly, Applicant respectfully requests the Examiner to particularly point out in the references where each element of claim 1 is disclosed.

The **BAKER et al.** reference apparently teaches an image generator for generating perspective images of a model having opaque and translucent features. An image is divided into an array of sub areas, each of which covers at least one pixel. For each feature in the model that is potentially visible, a test is done to determine which sub area is at least partially covered by that feature. An output for each pixel within a sub area is produced, and the output corresponds to the combined effects of the sampling point outputs for all sampling points which contribute to that pixel (Abstract).

In particular, Fig. 27 of **BAKER et al.** shows a flow diagram illustrating the operation of a postsorter. Fig. 27 illustrates a postsorter processor receiving geometrical attributes of each feature identified as impacting a relevant pseudocell, plus a RGBT value produced by a color mixer for a pseudopixel within which a sampling point is positioned. The appropriate pseudopixel data is selected for each sampling point by reference to the position of the sampling point relative to the pseudocell. Completely transparent samples are discarded so as to avoid cluttering the translucency stacks. For each pseudocell, sixteen RGBT values for the sixteen pseudopixels covering that pseudocell are input into the postsorter from the color mixer. Each postsorter processor is arranged to receive four pseudopixel values for the quadrant containing the sampling point, one quadrant being a quarter of a pseudocell that is 2X.2 pseudopixels. However, each processor is programmed to ignore all but the single RGBT value for the pseudopixel containing that processor's sampling point. Each pseudopixel area contains 12 or 13

sampling points, each quadrant area containing 50 sampling points, and each abutting pair of pseudopixels containing 25 sampling points (Col. 35, Lines 46-68).

The **COOK et al.** reference apparently discloses an architecture for fast hi-quality rendering of complex images, where all objects are reduced to micropolygons and all of the shading and visibility calculations operate on these micropolygons (Abstract). In particular, Figs. 4a and 4B shows a sphere is split into patches, one of patches being diced into an 8X8 grid of micropolygons, and the micropolygons in the grid are stochastically sampled.

Applicant asserts that Fig. 27 of **BAKER et al.** lacks the elements of “assigning sample patterns to each pixel” and “determining if the first image intersects any of the sample location,” as recited in Claim 1 of the pending application. Similarly, Applicant cannot readily deduce from Figs. 4a and 4b of **COOK et al.** or their descriptions the element of a “sample pattern having at least one sample location,” and Applicant submits that such element is not simply “well known in the art” as the Office Action states.

Therefore, Applicant respectfully requests the Examiner to clearly explain the references and how they are pertinent to the claimed invention according to 37 C.F.R. §1.104 and MPEP §706.02(j). Applicant further respectfully requests the Examiner to explain, how Fig. 27 in **BAKER et al.** teaches the limitations of “assigning sample patterns to each pixel” and “determining if the first image intersects any of the sample location” of claim 1, and how Figs. 4a and 4b in **COOK et al.** shows that “sample pattern having at least one sample location” is well known in the art. Without explicit direction as to where in the Baker et al. and Cook et al. references the elements of Claim 1 are present, Claim 1 cannot be rejected as obvious in view of such references.

Claims 2-16

The Office Action stated that limitations included in claims 2-16 are disclosed by **BAKER et al.** Figs. 10-19. Claim 2-8 are dependent method claims of claim 1. Claim 9 is an independent apparatus claim, and claims 10-16 are dependent apparatus claims of claim 9. Each of claims 2-16 includes different limitations disclosed in the specification. Conversely, Applicant notes that Figs. 10-11 in **BAKER et al.** disclose a scan converter and store and the functional structure of the store; Figs. 12-13 disclose boundary disposition and processing of edge equations; Figs. 14-18 disclose a rendering engine and processing of edge equation by a

presorter; Fig. 19 discloses a flow diagram for the processing of edge equation. Thus, Applicant respectfully requests that the Examiner to clearly explain the reference and how it is pertinent to the claimed invention according to 37 C.F.R. §1.104 and MPEP §706.02(j), or withdraw this ground of rejection accordingly.

Claims 17-83

The Office Action stated that due to the similarity of claims 17-83 to claim 1-16, claims 17-83 are rejected under a similar reason. Since the Office Action failed to clearly articulate the rejections of claims 1-16 as required under MPEP §706, Applicant hereby respectfully requests the Examiner to clearly explain where in the Baker et al. reference the rejected claim elements are found and how they are pertinent to the claimed invention according to 37 C.F.R. §1.104, or withdraw the rejection accordingly.

Conclusion

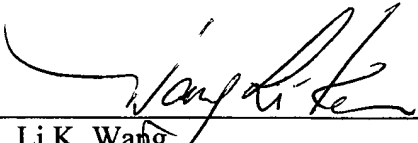
As discussed above, the Office Action failed to “clearly articulate any rejection [...] so that the applicant has the opportunity to provide evidence of patentability” according to MPEP §706. Applicant therefore respectfully requests that the Examiner to either point out how the cited references make the claimed invention obvious, or withdraw the present grounds of rejection and allow the pending claims. The Examiner is invited to telephone Applicant’s attorney (770-291-2125) to facilitate prosecution of this application.

No additional fees are believed due. However, the Commissioner is hereby authorized to charge any additional fees which may be required, including any necessary extensions of time, which are hereby requested, to Deposit Account No. 501403.

Respectfully submitted,

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Date 3/1/02

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 1 day of 3, 2002.

Li K. Wang

Name



Signature